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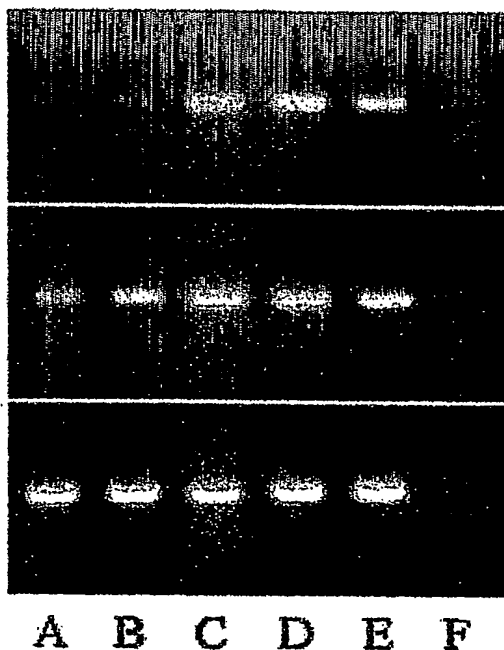
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[Continued on next page]

(54) Title: **USE OF FGF-18 PROTEIN, TARGET PROTEINS AND THEIR RESPECTIVE ENCODING NUCLEOTIDE SEQUENCES TO INDUCE CARTILAGE FORMATION**



Exogenous

Total

b-Actin

A B C D E F

(57) Abstract: The use of fibroblast growth factor (FGF)-18 protein, certain of its downstream target genes and respective expressed proteins, in particular sonic hedgehog (Shh), Shh protein,  $\beta$ -catenin,  $\beta$ -catenin protein, and the Wnt family of proteins that stimulate  $\beta$ -catenin, and the respective nucleotide sequences encoding this protein, particularly for inducing cartilage formation, particularly for the purpose of generating, repairing, reconstructing, or *de novo* formation of, cartilaginous tissue. Therapies for which FGF-18 and the target proteins are useful include repair and reconstruction of various tissues in conducting airways such as the trachea, bronchi, lung and larynx caused by, for example, tracheal-bronchial abnormalities, tracheal-laryngo or bronchial malaria. Other therapies for which FGF-18 and the target proteins would be useful include other cartilaginous tissues, such as those of joint and skeletal tissue caused by, for example, arthritis and meniscus abnormalities in joints.



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